REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1-22 and 26-27 are pending in this application. Claims 1, 14, and 26 are independent. The remaining claims depend, directly or indirectly, from claims 1, 14, and 26. Claims 10 and 19 have been cancelled by this reply. Claims 28 and 29 have been added by this reply.

Rejection(s) under 35 U.S.C § 102

Claims 1-4, 9-10, 14, and 19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by "A Remote Controlled Automated Measurement System" by Alegria et al. ("Alegria"). Claims 1 and 14 have been amended in this reply to clarify the present invention recited. Support for this amendment may be found, for example, on page 9 of the specification. To the extent that this rejection may still apply to the amended claims, the rejection is respectfully traversed.

The present invention relates to an apparatus and method for remotely monitoring and testing semiconductor devices. The apparatus, as recited in amended claim 1, includes "at least one remote workstation connected via a remote access link to a local workstation," and a "test system connected via a link to the local workstation, wherein

the test system comprises ancillary equipment pre-selected and operatively controlled by a client to test various functions of a device." The present invention allows a client to test a semiconductor device that is located at a remote manufacturing site, for example, to interactively monitor and control tests being performed on the semiconductor device (see, *e.g.*, page 7 of the specification).

Additionally, the method of the present invention, as recited in amended claim 23, includes "running a semiconductor test system remotely from a remote workstation," and monitoring and "receiving data from the semiconductor test system at the remote workstation, wherein monitoring the semiconductor test system comprises using at least one piece of ancillary equipment." Running a semiconductor test system includes, for example, using ancillary equipment to remotely control and change the device under test (DUT) (see *e.g.*, page 9 of the specification). Additionally, monitoring includes utilizing a camera to observe results of a test while in operation (see *e.g.*, page 9 of the specification).

In contrast, Alegria discloses a method to "control instrumentation, located remotely, by any computer integrated on a LAN," and states that the "server controls the instrumentation through an IEEE-488 interface bus" (see page 1186 of the article). Alegria does not disclose a client/server topology in which the client utilizes any type of ancillary equipment to control testing being performed at a remote location, as recited in amended claim 26. Further, the client/server topology disclosed in Alegria does not show or suggest that it is for the purpose of testing semiconductor devices. Therefore, it is clear that the client/server network disclosed in Alegria does not show or suggest the claimed apparatus or method for remotely testing semiconductors of the present

invention.

The Examiner asserts that claim 1 is anticipated by Alegria. The Examiner refers to Figure 1 of Alegria in making his assertion. While the figure does show a client/server network connected over a LAN, it does not show or suggest that the client/server network depicted in the figure is for the purpose of remotely testing semiconductor devices. In contrast, the representation of the client/server network as depicted is for the purpose of illustrating the circuit assembly, as discussed in the text accompanying the figure under the subtitle "Automated measuring system" of the article. Further, as discussed above, the figure depicted in Alegria does not show or suggest the use of ancillary equipment, as recited in amended claim 1.

In view of the above, Alegria fails to show or suggest the present invention as recited in amended independent claim 1. Thus, amended claim 1 is patentable over Alegria. Claims 2-10 and 11-13 depend, directly or indirectly, from claim 1 and are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 14 stands rejected as anticipated by Figure 1 of Alegria. Claim 14 has also been amended in this reply to include the limitation "wherein the test system comprises ancillary equipment pre-selected and operatively controlled by a client to test various functions of a device." As described above, Figure 1 does not show or suggest the use of ancillary equipment by a client. For similar reasons as discussed above, Alegria fails to show or suggest each and every element of the present invention, as recited in amended independent claim 14. Therefore, claim 14 is patentable over Alegria. Claims 15-16 and 18-22 depend, directly or indirectly from amended independent claim 14, and are

patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection(s) under 35 U.S.C § 103

Claims 26 and 27 are rejected under 35 U.S.C. § 103(a) as being obvious over "A Client-Server Architecture for Distributed Measurement Systems" by Bertocco et al. ("Bertocco") in view of Alegria. Claim 26 has been amended in this reply to clarify the present invention recited. Support for this amendment may be found, for example, on page 9 of the specification. To the extent that this rejection may still apply to the amended claims, the rejection is respectfully traversed.

Claim 26 of the present invention, as amended, relates to "an apparatus for remotely monitoring and developing steps in a semiconductor manufacturing process." The claim has been amended to include the limitation "wherein the test system comprises ancillary equipment pre-selected and operatively controlled by a client to test various functions of a device." Ancillary equipment allows a remote client to control testing being performed at a remote location. Examples of ancillary equipment include a temperature forcing unit or a device handler (see, *e.g.,* page 9 of the specification).

In contrast, Bertocco discloses a solution for "the remote control of instrumentation" between clients and servers (see page 67 of the article). Bertocco does not show or suggest that a client may use ancillary equipment to control any type of testing being performed on the "instrumentation." Additionally, Bertocco discloses a method in which the remote client "....asks [the server] for a procedure to be executed and receives the results" (see page 68 of the article). Thus, Bertocco discloses

client/server architecture based on the remote server running pre-programmed procedures that the client calls, whereas the present invention discloses remotely testing and monitoring semiconductor devices where the client has control over the testing procedure being performed on the semiconductor device. Therefore, it is clear that the present invention is not taught by Bertocco.

The Examiner refers to Figure 1 of Bertocco in making his assertion that amended claim 26 of the present invention is obvious over Bertocco in view of Alegria. While Figure 1 does show a client/server network connected over a communication line, the figure does not show or suggest any type of ancillary equipment. In contrast, Figure 1 is depicted to illustrate a solution to the problem of connecting to a multi-user concurrent access system as explained in the accompanying text on pages 68-69 of the article.

As discussed above, Alegria also does not disclose the present invention as recited in amended claim 26. Therefore, neither Alegria nor Bertocco show or suggest the present invention as recited in amended independent claim 26. Claim 27 depends directly from claim 26, and therefore is patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

New Claims

Claims 28 and 29 have been added by this reply. Support for claim 28 may be found, for example, on page 7 of the specification. Support for the claim 29 may be found, for example, on page 9 of the specification. Claim 28 depends directly from amended independent claim 23 and is patentable for at least the same reasons as above. Claim 29 depends directly from amended independent claim 1 and is patentable for at least the same reasons discussed above.

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 07150.003001).

Respectfully submitted,

Date: 01/16/04

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